01-MEN-101
KP 14.2/22.5 (PM 8.8/14.0)
03-230 29210K
IRS-HE14 Upgrade To 4-Lane Facility

PROJECT STUDY REPORT
(ENVIRONMENTAL ONLY)

In Mendocino County, On Route 101, Near Hopland,
From Russian River Bridge to 5 K **N**orth of Route 175

APPROVAL RECOMMENDED:

KAREN TATMAN, PROJECT MANAGER

APPROVED:

RICK KNAPP, DISTRICT 1 DIRECTOR DATE

This Project Study Report (Environmental Only) has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

REGISTERED CIVIL ENGINEER DATE

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PROJECT STUDY REPORT (ENVIRONMENTAL ONLY)

INTRODUCTION-This candidate project is for the construction of a 4-lane freeway or expressway bypass of the community of Hopland, on Route 101, in southern Mendocino County. The project is needed to reduce operational conflicts, accommodate existing and future traffic demand, reduce travel time (delay), increase safety, improve air quality and reduce noise in Hopland, and provide the facility concept identified in the "Interregional Transportation Strategic Plan".

Four preliminary alternatives have been identified, as follows:

1. East Alternative: This is a slight modification of the alignment adopted in the November 18, 1964 freeway agreement, and would traverse the foothills immediately east of East Side Road near the community of Old Hopland. This route was developed to minimize impacts on agricultural lands and is the least expensive to construct. It includes an interchange at Route 175, and has estimated costs as follows:

    - Roadway Construction $63 million
    - Structures $25 million
    - Right-of-way $15 million
    - Support $22 million
    - **Total estimated cost $125 million**

2. West Alternative: The westerly alternative traverses the hills immediately west of the community of Hopland. This alternative was developed to minimize the take of agricultural lands and minimize impacts on cultural resources but is the most expensive to construct. It includes an interchange south of Route 175, and has estimated costs as follows:

    - Roadway Construction $84 million
    - Structures $40 million
    - Right of way $17 million
    - Support $35 million
    - **Total estimated cost $176 million**

3. Valley Alternative: This alternative would traverse Sanel Valley, between the community of Hopland and the Russian River. This route would be the most direct. It includes an interchange at Route 175, and has estimated costs as follows:

    - Roadway Construction $70 million
    - Structures $26 million
    - Right of way $6 million
    - Support $26 million
    - **Total estimated cost $128 million**

4. No Build Alternative: This alternative would retain the existing Route 101 alignment.

Additional alternatives are likely to be developed as the project moves through the environmental process. These alternatives would likely include alignments that do not entirely meet the draft need and purpose, but work towards meeting them at lower monetary and environmental costs.

It is anticipated that the project approval and environmental document (PA & ED) portion of this project would be funded with Interregional Improvement Program (IIP) funds.

BACKGROUND- Hopland is a community with a population of approximately 1,000, centered at the intersection of State highway Routes 101 and 175. Community businesses are primarily visitor serving, such as restaurants, antique shops, and brewery. Streets are tree-lined, and sidewalks are present at most locations. Traffic volumes and highway width tend to detract from an otherwise pedestrian friendly community.

A freeway agreement was executed on November 18, 1964, for the segment from south of Hopland to Crawford Ranch (MEN-101-PM 8.93/17.34 or KP 14.37/27.91). The adopted alignment traverses the foothills just east of Old Hopland, then circles west, connecting to existing Route 101 alignment about 3 kilometers (2 miles) north of Hopland. The route adopted in the November 1964 freeway agreement is moot, in that

the adoption took place before the National Environmental Protection Act and the California Environmental Quality Act were enacted. However, one of alternatives being considered, the "East Alternate", essential follows the adopted highway alignment with some minor modifications.

Construction of the Hopland Bypass has long been a priority of the Mendocino Council of Governments and Caltrans. However, the Willits Bypass has been a higher priority. With programming of the Willits Bypass in the 1998 State Transportation Improvement Program (STIP), the Hopland Bypass has become the highest priority Route 101 STIP candidate for the Mendocino Council of Governments, Caltrans, and the North Coastal Counties Supervisors Association.
Local and regional agencies are likely to prefer an alternative that provides the most direct bypass of Hopland, yet allows good visibility of the town and its businesses, and provides convenient access. However, such a route is likely to have agricultural land conversion concerns.

While broad local and regional support for the Hopland Bypass is anticipated, opposition is also anticipated. Some environmental organizations are expected to oppose the project, based on the fact that it would result in another road being constructed, which would encourage more motor vehicle use and facilitate growth. Other environmental concerns that are likely to occur with alternative bypass routes include impacts to floodplains, rare and endangered species, visual and cultural resources.

In addition, the conversion of agricultural land (including vineyards), the effect of a new alignment on business (economic) and residence (noise) is likely to be of concern to the community. Opposition by some local businesses is anticipated, as there may be concerns regarding reduced exposure to through traffic. Others are likely to support construction of a bypass, as removal of truck traffic and congestion will have a positive impact on the environment of downtown Hopland.

East Side Road parallels Route 101 on the east side of the Russian River. It is a low volume, curvilinear road, primarily serving local traffic. It is not a practical alternative to Route 101 to due its' long and narrow alignment and the slow speeds required to navigate the road.

The Northwestern Pacific Railroad also parallels Route 101 in the Hopland area. It serves freight and some excursion traffic. Expanded use of rail facilities is not likely to relieve traffic congestion in the Hopland area.

In the project report and environmental documentation phase of this project, alternatives will be "fine tuned" to accomplish the draft need and purpose, while minimizing impacts to cultural resources, biological resources, and businesses in the area. This cannot be done without an effort that involves the community, local and regional agencies, resource agencies, and individuals/groups with environmental interests.

DRAFT NEED AND PURPOSE-There are six primary factors which make up the draft need and purpose for the Hopland Bypass project: operational conflicts, existing and future traffic demand, operating speed/delay/level of service, safety, concept facility, and regional transportation improvement priorities. Since this improved transportation facility is needed to provide interregional connectivity, rather than to accommodate land use proposals, no discussion of area land use is provided.

The controversial aspects of this project are likely to be economic (the impact of traffic reductions on existing business in Hopland), conversions of agricultural lands (including vineyards) and environmental impacts (to both cultural and biological resources). These issues are discussed at the end of this section.

The six primary factors of the draft need and purpose are discussed in the following:

1. **Operational Conflicts-**Route 101 is the "lifeline of the Northcoast". It is a principal arterial and is part of the National Highway System. It is also an Interregional Road System "focus route". This segment of Route 101 passes through the town of Hopland, a community with a population of approximately 1,000.

   Operational conflicts occur primarily due to turning movements, parking maneuvers, and bicycle/pedestrian traffic within the community of Hopland. Local traffic conflicts with interregional traffic that is generally interested in traveling as quickly as possible on the Route. These operational conflicts are expected to increase in future years as both traffic volumes and the population increases in the community.

   Construction of a bypass facility would substantially reduce operational conflicts between local traffic and interregional traffic.

2. **Existing and Future Traffic Demand-**Existing traffic volume on Route 101 through the community of Hopland is approximately 13,300 vehicles per day (annual average daily traffic). Truck traffic is approximately 9% of overall traffic volumes, with over 1,100 trucks per day passing through the community of Hopland.

   With a projected traffic volume increase of approximately 60% over the next 20 years, traffic volumes are expected to reach approximately 22,500 AADT by the year 2020. Further, peak month volumes are expected to be nearly 15% higher than annual average daily traffic.

   Traffic volume increases are expected to decrease operating speeds and level of service, while increasing delay, accidents, and operational conflicts. Construction of a bypass facility would mitigate traffic volume increases by providing a safer facility that would reduce travel time and minimize operational conflicts.

3. **Operating Speed, Delay, and Level of Service**- Speed limits on the Hopland segment of Route 101 currently range from 55 miles per hour (88.5 kph) to 35 miles per hour (56.3 kph) within the community of Hopland.

   Based on State Highway Inventory peak hour operating speeds, peak hour travel time through the existing Hopland segment (MEN-101-KP 14.2/22.5 or PM 8.8/14.0) is nearly 9 minutes. Alternative alignments being considered vary between 8.1-8.7 kilometers (5.0-5.4 miles) in length. Assuming an 8.4 kilometer (5.2 mile) length, and a 65-mile per hour (104.6 kph) speed, travel time on the bypass facility would be about 4 minutes and 50 seconds (about 4 minutes and 10 seconds less than current travel times during the peak hour). Even based on the average of peak and off peak travel times, a new bypass facility would be nearly three minutes faster than the existing facility.

   As traffic volumes increase in the future, peaks along the existing segment are expected to expand and travel times increase substantially. It is anticipated that average travel times for the existing Hopland segment will be about 9 minutes by the year 2008 and will exceed 15 minutes by the year 2028 if traffic volumes increase as projected, and no new facility is constructed. A new 4-lane freeway facility would have an operating speed of 65 miles per hour through the year 2028, based on traffic volume projections.

   Existing peak hour highway segment level of service in the Hopland area is "E". With anticipated traffic volume increases (approximately 60% by 2018), peak hour highway segment level of service is expected to drop to "F".

   A new 4-lane freeway/expressway bypass facility would be expected to provide a "B" level of service when constructed, and a "C" or greater level of service 20 years after construction. A "C" level of service is the concept level of service in the 1994 Route Concept Report for this segment of Route 101.

4. **Safety**-The three-year accident history on this segment indicates that this segment is operating consistent with other similar intersections statewide.

   Of the 8.3 kilometers (5.2 miles) of existing highway segment, approximately 20%, about 1.7 kilometers (1 mile), is posted with speed limits less than 88.5 kph (55 mph), generally within the community of Hopland. Historically, nearly one-half of the accidents occur in the reduced speed zone area.

   Reducing the accident rate to approximately one-half the current level (accident rates for freeway facilities are historically lower than for 2-lane conventional highway segments) is anticipated with new freeway facility construction.

5. **Concept Facility**-Construction of a bypass facility would be consistent with both the Caltrans "Interregional Transportation Strategic Plan", dated June 1998, and the District 1 Route Concept Report for Route 101, dated November 1994. Both of these

plans identify a 4-lane freeway or expressway as the facility concept for Route 101 in the Hopland area.

6. **Regional Transportation Improvement Priorities**-The Hopland Bypass is listed as the second highest priority new facility highway improvement in the Mendocino Council of Governments Regional Transportation Plan, which was readopted in 1996. The first priority was the Willits Bypass, which has since been programmed in the State Transportation Improvement Program. The Hopland Bypass is also the highest priority STIP candidate project in the North Coastal County Supervisors Association list of Route 101 improvement priorities, adopted on October 29, 1998.

As with most projects, there are controversial aspects of the Hopland Bypass project. As previously noted, the primary issues regarding the Hopland Bypass project are likely to involve the impact of bypassing existing highway orientated business in Hopland, the conversion of agricultural land, and both cultural and biological environmental impacts. Each of these issues is discussed below:

Traffic Reduction Impacts on Hopland Businesses-Businesses along Route 101 in Hopland include wineries, a service station, and several eating establishments that cater to recreational traffic using the State Highway. Bypassing Hopland could result in substantial impacts to many of the businesses serving recreational traffic. The impact is likely to be greater on businesses relying on "pass by trips" and less on businesses that may be considered as "destinations". It is anticipated that the economic impacts to businesses in Hopland will be an issue throughout development of this project.

Environmental Issues-Primary environmental issues are likely to include:

- Impacts to Native American archaeological sites, with the greatest impacts likely on the East Alternate
- Impacts to potentially historic buildings with the greatest impacts likely on the West Alternate
- Noise and visual impacts to potentially historic structures, with impacts likely on the West and East Alternates
- Socio-economic impacts to the communities of Hopland and Old Hopland
- Conversion of agricultural land to transportation use, with the greatest impacts likely on the Valley Alternate
- Impacts to rare and endangered species

PROJECT ALTERNATIVES AND ALTERNATIVES ANALYSIS-A description of the four alternatives being considered for the Hopland Bypass. A discussion of their anticipated success in meeting the six primary factors of the project draft need and purpose follows below.
All of the "build" alternatives being considered share the following geometrical attributes:

- 4-lane facility (freeway/expressway facility)

- 13.8-m (46') median
- 3.6-m (12') lanes
- 3-m (10') shoulders

A 13.8-m median is being proposed in lieu of the standard 18.6-m median to minimize possible impacts to agricultural lands and to minimize private property right-of-way acquisitions.

The "build" alternatives all connect with the Hopland Unit III to the south of the proposed project. Currently, the Hopland III project is scheduled for construction in 2001. The north end of the bypass project will connect with the existing 2-lane conventional highway segment. The new alignment will conform with the existing alignment north of a passing lane (both directions) section.

The estimated capital cost of the Hopland Bypass project is between $102-$141 million. Capital costs plus support costs are estimated to be between $125-$176 million depending on the alternative selected. Both the cost and the benefit/cost ratio of the project will be issues discussed in the development of this project. A summary of estimated costs is detailed in the following table:

HOPLAND BYPASS ESTIMATED PROJECT COSTS EA. #29210K			
	A1-EAST Length=8.7 km (5.4 miles)	**A2-WEST** Length=8.4 km (5.2 miles)	**A3-VALLEY** Length=8.0 km (5.0 miles)
Roadway Construction	$63 M	$84 M	$70 M
Structure	$25 M	$40 M	$26 M
Right-Of-Way	$15 M	$17 M	$6 M
SUBTOTAL	**$103 M**	**$141 M**	**$102 M**
Support Cost Through PS&E	$22 M	$35 M	$26 M
TOTAL	**$125 M**	**$176 M**	**$128 M**

East Alternative (A-1)

Description: This alternative is a modification of the alignment adopted by the Division of Highways in November of 1964. It traverses the foothills of the Russian River Valley, east of East Side Road. The proposed four-lane highway alignment begins about 0.6 kilometers south of the existing Russian River Bridge and continues rising in elevation up into the hills to the east of East Side Road which runs parallel to, and east of, both Route 101 and Sanel Valley.

After traversing the hills, the alignment drops down into the valley to the east of Old Hopland where it crosses Route 175 before climbing back into the hills. The alignment then turns west to cross the Russian River, via a bridge, and the Sanel Valley, via embankment. The alignment then crosses the railroad and reconnects with the existing Route 101 alignment about eight kilometers north of the point of beginning, just north of the existing fire station.

The East Alternate requires six crossings, each consisting of two bridges of two lanes each, and three private road undercrossings. The structures are summarized below:

- Dooley Creek
- Interchange connecting Route 175 with Route 101
- University Road (County) crossing
- East Side Road (County) undercrossing
- Russian River crossing at the north end of the project
- Railroad crossing at the north end of the project
- Three private road undercrossings

Conformance With the Six Primary Factors of the Draft Purpose and Need:

1. **Operational Conflicts-**This alternative will substantially reduce operational conflicts within the community of Hopland, as traffic volumes of approximately one-third of current volumes would be expected within Hopland. Further, truck traffic reductions to approximately one-tenth of current volumes would be anticipated, and large truck traffic would be virtually eliminated within the community of Hopland.

   Some operational conflicts will be added at intersections; the most significant is expected to occur east of Old Hopland, at the northbound Route 175 on ramp. Left turn movements are expected to be relatively high at this location, facing low volume but fairly high speed westbound Route 175 traffic.

2. **Existing and Future Traffic Demand-**Traffic volumes are expected to exceed 25,000 AADT on Route 101 twenty years after construction. However, the new freeway facility would be designed to readily accommodate this volume of traffic.

   As previously noted, traffic volumes within the community of Hopland would be substantially reduced under this alternative. Traffic volumes on Route 175 in Old Hopland would increase, as traffic for Hopland and Mountain House road would use this Route. Access to Old Hopland and Route 175 east would improve, while access to Hopland would not be as convenient.

3. **Operating Speed, Delay and Level of Service-**The East Alternate is approximately 0.3 KM (0.2 MI) longer than the existing alignment. It is expected to have a design speed of 110 KPH (approximately 70 MPH), and an operating speed of approximately 105 KPH (65 MPH). The existing facility has an average operating speed of about 65 KPH (40 MPH), with peak hour speeds of about 55 KPH (35 MPH). Average operating speeds on the existing facility are expected to deteriorate to approximately 55 KPH (35 MPH) by the construction year. If the new facility is not constructed, average operating speed on the existing facility is expected to fall to just over 30 KPH (20 MPH) over the following 20 year period.

Average travel time on this alternative is estimated to be nearly four and one-half minutes less than for the existing facility, in the construction year. As traffic volumes and local congestion increase, average timesavings is expected to increase to over 10 minutes in the 20 years following the construction year.

A new bypass facility would be expected to maintain a "C" or better peak hour level of service through the 20-year period. If no new facility is constructed, the existing facility is expected to decline from the existing "E" peak hour level of service to "F" within the next 20 years.

4. **Safety**-The accident rate for a freeway facility would be about one-half the rate experienced on the existing highway segment, based on similar facilities Statewide.

5. **Concept Facility**-A new freeway facility would be consistent with the 4-lane freeway/expressway concept for Route 101 in the Hopland area.

6. **Regional Transportation Improvement Priorities**-A new freeway facility would be consistent with priorities expressed in the Mendocino Council of Governments Regional Transportation Plan, which calls for a bypass of Hopland as the second highest priority new facility highway improvement (the first priority, Willits Bypass, is already programmed).

West Alternative (A-2)

Description: This alternative traverses the low mountains west of Hopland. It is being considered as an alternative primarily to minimize archaeological impacts. The proposed four-lane highway alignment begins about 0.4 kilometers south of the existing Russian River Bridge, crosses the river and continues north across the valley, rising in elevation up into the hills to the west of Hopland.

After traversing the hills, the alignment drops down into the valley where it reconnects with the existing Route 101 alignment about eight kilometers north of the point of beginning, just north of the existing fire station.

The West Alternate requires seven crossings, each consisting of two bridges of two lanes each, and one private road undercrossing. The structures are summarized below:

- Russian River crossing south of Hopland
- Railroad crossing to the north of the Russian River
- Interchange south of Hopland school connecting to existing Route 101
- Feliz Creek crossing to the north of Hopland School
- Hewlitt Road (County) crossing
- MacMillan Road (County) crossing
- Feliz Road (County) crossing
- One private road undercrossing

Conformance With the Six Primary Factors of the Draft Purpose and Need:

1. **Operational Conflicts-**This alternative will substantially reduce operational conflicts within the community of Hopland, as traffic volumes are expected to be approximately one-third of current volumes within Hopland. Further, truck traffic reductions, to approximately one-tenth of current volumes, are anticipated and large truck traffic is expected to be virtually eliminated within the community of Hopland.

   Minimal operational conflicts would be expected on the new facility. The most significant anticipated are at the intersection of old Route 101 and Route 175, and left-turn movements from the southbound off-ramp.

2. **Existing and Future Traffic Demand-**Traffic volumes are expected to exceed 25,000 AADT on Route 101 twenty years after construction. However, the new freeway facility would be designed to readily accommodate this volume of traffic.

   As with other bypass alternatives, traffic volumes within the community of Hopland would be substantially reduced. Except for the interchange area, no substantial traffic volume increases are anticipated with this alternative.

3. **Operating Speed, Delay and Level of Service-**The West Alternate is approximately the same length as the existing alignment. As with other bypass alternatives, it is expected to have a design speed of 110 KPH (approximately 70 MPH), and an operating speed of approximately 105 KPH (65 MPH). The existing facility has an average operating speed of about 65 KPH (40 MPH), with peak hour speeds of about 55 KPH (35 MPH). Average operating speeds on the existing facility are expected to deteriorate to approximately 55 KPH (35 MPH) by the construction year. If the new facility is not constructed, average operating speed on the existing facility is expected to fall to just over 30 KPH (20 MPH) over the following 20 year period.

   Average travel time on this alternative is expected to be over four and one-half minutes less than for the existing facility, in the construction year. As traffic volumes and local congestion increase, average timesavings is expected to increase to over 10 minutes in the 20 years following the construction year.

   A new bypass facility would be expected to maintain a "C" or better peak hour level of service through the 20-year period. If no new facility is constructed, the existing facility is expected to decline from the existing "E" peak hour level of service to "F" within the next 20 years.

4. **Safety-**The accident rate for a freeway facility would be about one-half the rate experienced on the existing highway segment, based on similar facilities Statewide.

5. **Concept Facility**-A new freeway facility would be consistent with the 4-lane freeway/expressway concept for Route 101 in the Hopland area.
6. **Regional Transportation Improvement Priorities-**A new freeway facility would be consistent with priorities expressed in the Mendocino Council of Governments

Regional Transportation Plan, which calls for a bypass of Hopland as the second highest priority new facility highway improvement (the first priority, Willits Bypass, is already programmed).

Valley Alternative (A-3)

Description: This alternative primarily traverses agricultural land in the Russian River Valley, just east of Hopland. It is the most direct route for a Hopland Bypass. The proposed four-lane highway alignment begins about 0.4 kilometers south of the existing Russian River Bridge, crosses the river and continues north through the Sanel Valley floodplain, parallel to and between existing Route 101 and the Russian River. This alternative avoids the hills to the west and east of the valley. After crossing the railroad, the alignment reconnects with the existing Route 101 alignment about six kilometers north of the point of beginning, just north of the existing fire station.

The Valley Alternate requires four crossings, each consisting of two bridges of two lanes each, and three private road undercrossings. The structures are summarized below:

- Russian River crossing south of Hopland
- Interchange east of Hopland connecting Route 175 with Route 101
- Feliz Creek crossing
- Railroad crossing at the north end of the project
- Three private road undercrossings

Conformance With the Six Primary Factors of the Draft Purpose and Need:

1. **Operational Conflicts-**This alternative will substantially reduce operational conflicts within the community of Hopland, as traffic volumes are expected to be approximately one-third of current volumes within Hopland. Further, truck traffic reductions to approximately one-tenth of current volumes are anticipated, and large-truck traffic is expected to be virtually eliminated within the community of Hopland.

   Some operational conflicts will be added or exacerbated at intersections, including the left turn movement to the northbound on ramp, and left turn movements at the Route 175/Old Route 101 intersection.

2. **Existing and Future Traffic Demand-**Traffic volumes are expected to exceed 25,000 AADT on Route 101 twenty years after construction. However, the new freeway facility would be designed to readily accommodate this volume of traffic. As previously noted, traffic volumes within the community of Hopland would be substantially reduced.

3. **Operating Speed, Delay and Level of Service-**The Valley Alternate is slightly shorter 0.2 KM (0.15 MI) than the existing alignment. It is expected to have a design speed of 110 KPH (approximately 70 MPH), and an operating speed of approximately 105 KPH (65 MPH). The existing facility has an average operating speed of about 65 KPH (40 MPH), with peak hour speeds of about 55 KPH (35 MPH). Average operating speeds on the existing facility are expected to deteriorate to approximately

55 KPH (35 MPH) by the construction year. If the new facility is not constructed, average operating speed on the existing facility is expected to fall to just over 30 KPH (20 MPH) over the following 20 year period.

Average travel time on this alternative is expected to be nearly five minutes less than for the existing facility, in the construction year. As traffic volumes and local congestion increase, average timesavings is expected to increase to over 10 minutes in the 20 years following the construction year.
A new bypass facility would be expected to maintain a "C" or better peak hour level of service through the 20-year period. If no new facility is constructed, the existing facility is expected to decline from the existing "E" peak hour level of service to "F" within the next 20 years.

4. **Safety**-The accident rate for a freeway facility would be about one-half the rate experienced on the existing highway segment, based on similar facilities Statewide.

5. **Concept Facility**-A new freeway facility would be consistent with the 4-lane freeway/expressway concept for Route 101 in the Hopland area.

6. **Regional Transportation Improvement Priorities**-A new freeway facility would be consistent with priorities expressed in the Mendocino Council of Governments Regional Transportation Plan, which calls for a bypass of Hopland as the second highest priority new facility highway improvement (the first priority, Willits Bypass, is already programmed).

"No Build" Alternative

Description: The existing facility is a 2-lane conventional highway with two 3.6 m (12') lanes with 1.2 to 2.4 m (4-8') shoulders. Existing operational improvements in Hopland include turn pockets at Mountain House Road and Route 175 and 2-way left turn lanes in most other locations. There are short, 1 km (0.6 miles), passing lanes in both directions at the northern end of this segment. Shoulders on the passing lane portions are 0.6 m (2') wide.

The no build alternative would keep Route 101 in its existing location. It may be necessary, in lieu of a no build alternative, to consider constructing operational improvements to the existing highway segment in the future. However, it is unlikely that a no build option with operational improvements would satisfy the conditions of the draft purpose and need, or accommodate projected future traffic volumes without substantial delays.

Conformance With the Six Primary Factors of the Draft Purpose and Need:

1. **Operational Conflicts**-Increases in operational conflicts are expected to occur as traffic volumes, turning movements, parking maneuvers, and bicycle/pedestrian traffic increase. It may be possible to mitigate some operational conflicts through the provision of wider shoulders or additional through or turning lanes within Hopland.

Interregional "through" traffic currently experiences some delay while passing through the Community of Hopland. Delays are expected to increase in the future as operational conflicts and traffic volumes increase. Assuming projected traffic growth, and no improvements are made to the existing facility, peak hour travel times are expected to exceed 10 minutes by the year 2008 and 20 minutes by the year 2028.

2. **Existing and Future Traffic Demand-**Traffic volumes are expected to exceed 25,000 on Route 101 by the year 2020. The existing facility will not be able to accommodate projected peak hour traffic without significant delays, as noted above.

3. **Operating Speed, Delay, and Level of Service-**The existing facility has an average operating speed of about 80 KPH (50 MPH), and slightly lower at peak hour. As traffic volumes increase in the future, delays, due to increased operational conflicts and capacity constraints, are expected to reduce average operating speed.

   The existing facility is expected to decline from an "E" peak hour level of service to "F" within the next 20 years.

4. **Safety-**The accident rate for the existing facility is about two times the accident rate for a freeway facility, based on similar facilities Statewide. It is likely that the accident rate for the existing facility will increase as traffic volumes and operational conflicts increase in the Hopland area.

5. **Concept Facility-**The existing 2-lane conventional highway facility is not consistent with the 4-lane freeway/expressway concept for Route 101 in the Hopland area.

6. **Regional Transportation Improvement Priorities-**The no-build alternative (not constructing a bypass and continuing to use existing Route 101 in the Hopland area) would not be consistent with regional transportation improvement priorities, as it fails to accomplish the stated priorities.

SYSTEM PLANNING-

Consistency Of The Hopland Bypass With System Planning Products-As noted in the "Purpose and Need" section of this Report, the 4-lane freeway/expressway concept is consistent with the District 1 Route Concept Report for Route 101, dated November 1994. This Route Concept Report calls for a 4-lane freeway or expressway, operating at a "C" or better level of service, for this segment of Route 101.

The District 1 System Management Plan (DSMP), dated November 1992, includes the Hopland Bypass as the highest priority unprogrammed STIP candidate on Route 101.

The DSMP also notes that the Hopland Bypass is the second highest highway improvement priority for Mendocino Council of Governments, behind only the Willits Bypass (which has since been fully programmed).

Consistency Of The Hopland Bypass With The "Interregional Transportation Strategic Plan"-The Caltrans "Interregional Transportation Strategic Plan", produced by the California Department of Transportation (Caltrans), and dated June 1998, identifies the facility concept for Route 101 between the City of Cloverdale and north of the City of Eureka as 4-lane freeway or expressway. This concept was selected based on Route 101 providing for "….a moderate to high level of service and lifeline accessibility for rural communities and the interregional movement of people, goods, and recreational travel to the northwestern part of the state." The proposed Hopland Bypass Project is consistent with this "Interregional Transportation Strategic Plan" facility concept for Route 101.

Consistency Of The Hopland Bypass With Local And Regional Planning-
Mendocino County General Plan: The "Needs and Deficiencies" section of the Circulation Element of the Mendocino County General Plan, revised in April of 1986, states: "Route 101 should be completed to full freeway standards as rapidly as possible, and the direction of work should be from the southern boundary of the County northward." The Hopland Bypass is expected to meet the intent of the Mendocino County General Plan, although some of the project may be constructed to expressway standards, particularly if there are relatively low volume intersections that prove difficult and expensive to serve with frontage roads.

There are no specific area plans in the Hopland area. Further, there are no known plans for major subdivisions or other major development in the vicinity of the Hopland community. It is anticipated however, that the trend toward urbanization of rural areas could affect the Hopland area within the next 20 years.

Mendocino Council of Governments Regional Transportation Plan: The Mendocino Council of Governments Regional Transportation Plan supports construction of a bypass of Hopland. It is the highest priority unprogrammed new facility highway improvement in the Mendocino Council of Governments Regional Transportation Plan. The Regional Plan notes that development of a Project Study Report for the Hopland Bypass is a regional priority.

Congestion Management Program and State Implementation Plan: Mendocino County has no urbanized areas, and is not required to have a Congestion Management Program. While particulate matter may be a concern in the Yokayo Valley (Ukiah area), air quality issues are not expected to be a concern in the Hopland area. As such, the Hopland Bypass is not likely to be in conflict with the State Implementation Plan.

ENVIRONMENTAL DETERMINATION-Major environmental resources within the project vicinity include:

- potentially prime agricultural land
- the Russian River and its tributaries
- sensitive noise receptors such as residences, the Hopland Cemetery, and the Hopland School
- anadromous fish
- oak woodland
- the rural/agricultural and rural/oak woodland corridor
- several prehistoric and historic cultural resources
- the Thatcher Hotel

The attached Environmental Scoping Checklist includes a preliminary list and map of potential hazardous waste/material sites.

Potential environmental issues include:

1. Conversion of prime agricultural land for highway construction;
2. Impacts to potential historic resources;
3. Freeway traffic noise;
4. Impacts to sensitive plant and animal species;
5. Potential loss of business from through regional or interregional traffic;
6. Potential impacts to community character, stability, cohesion, and way of life;
7. Direct and indirect effects to tourism; and
8. Potential growth inducing impacts.

Other issues, which could be potentially controversial, may arise when public and interest groups are contacted regarding this project proposal. Environmental issues 1 through 4 listed above have the most potential to affect the viability of a bypass alignment.

Based on the information available, the appropriate environmental document for both State and Federal regulation compliance would likely be an Initial Study/Environmental Assessment (IS/EA). After the IS/EA document is completed, Caltrans and FHWA staff could make a determination with other public agencies regarding the final environmental document. If substantial formal public opposition to the project arises, or there appears to be substantial unavoidable environmental effects, an Environmental Impact Report/Study (EIR/S) would be required. Because of the magnitude of potential project effects and the project scope, an EIR/S would likely be the appropriate environmental document. If public opposition is minimal and there are minimal effects to biological and cultural resources, a Negative Declaration/Finding of No Significant Impact (ND/FONSI) may be the appropriate document. Caltrans would be the lead State agency and the Federal Highway Administration would be the lead Federal agency.

For more information, refer to the attached Environmental Scoping Checklist.

RIGHT OF WAY IMPACT-

East Alternative (A-1)

This alternate will divide four larger ranch parcels. It will be necessary to develop access under the freeway to provide access to both sides of the ranches. It is supposed that the main Fetzer Vineyards' manufacturing buildings will be missed by this project. This alternative will affect many expensive ($250,000 or greater) homes as well as vineyards and potential residential holdings.

West Alternative (A-2)

This alternate will affect 24 houses, 19 rentals, five businesses, a water tank, a community hall, some vineyards, and some proposed residential/subdivision lands. It will be necessary to build frontage roads to relieve the cost of buying additional expensive homes. This alternative may affect a commercial shopping center now under construction, located at the former Fetzer Winery in downtown Hopland.

Valley Alternative (A-3) This alternate will divide six agricultural holdings so access will need to be established to both sides of the ownership. This may increase their operating costs.

"No Build" Alternative

No right-of-way is affected under the "no-build" scenario.

It should be noted that alternates A1-East, A2-West and A3-Valley include private freeway undercrossings (three for A1, one for A2 and three for A3). These undercrossings will eliminate the need to purchase large blocks of private property in order to construct the new freeway.

FUNDING/SCHEDULING-The proposal is to fully fund the project from IIP, Interregional funds. This PSR proposes to program the project through Project Approval/Environmental Document (PA&ED) only. Future programming will be needed for Design, Right of Way Acquisition, and Construction. PA&ED are scheduled for 6/03. No commitment for PS&E and Construction schedule is being made at this time. Total estimated "people years" (PY's) and project scheduling are detailed in the XPM Workplan in Attachment M.

RECOMMENDATION-Staff recommends programming the Project Approval and Environmental Document (PA & ED) support component of this project in the 1998 STIP amendment (or a future STIP) at an estimated cost of $5 million dollars. Project alternatives identified in the "Project Alternatives and Alternatives Analysis" section of this Project Study Report should be studied further in the PA & ED phase.

Public meetings and project development team meetings will be held during the development of this project. It is anticipated that variations of the existing project alternatives or additional alternatives will be suggested and developed, if they have the potential to minimize project impacts and costs.

It should also be noted that the alignments developed for the PSR (EO) were based on 1974 contour maps and within a six week time frame. Alignments that consider minimizing right-of-way and environmental impacts should be evaluated during the Project Report phase. In addition, layouts should be reevaluated when more accurate ground information is available so that earthwork quantities can be determined more accurately and be balanced to the best extent possible.

The Project Development Coordinator, Ron Nelson, has reviewed and concurs with the design concept.

CONTACTS-

Project Engineer: Ilene Poindexter
1656 Union Street
Eureka, California
95501
Cal Net #8-538-6602

Project Manager: Karen Tatman
703 B Street
Marysville, California
95901
Cal Net #8-457-5331

ATTACHMENTS – Report attachments are as follows:

ATTACHMENT A – Location Map

ATTACHMENT B – Vicinity Map

ATTACHMENT C – Plan of Alternatives

ATTACHMENT D – Typical Section

ATTACHMENT E – Land Use Map

ATTACHMENT F – PSR (EO) Cost Estimate

ATTACHMENT G – Design Scoping Checklist

ATTACHMENT H – Environmental Study Checklist

ATTACHMENT I – Traffic Scoping Checklist

ATTACHMENT J – Right-of-way Scoping Checklist

ATTACHMENT K – PSR Performance Measure Evaluation Checklist

ATTACHMENT L – Adopted Highway Map (1964)

ATTACHMENT M – Project Support Costs for PA&ED

ATTACHMENT A – Location Map. . . See Hopland Bypass Home Page

ATTACHMENT B – Vicinity Map. . . See Hopland Bypass Home Page

ATTACHMENT C – Plan of Alternatives

ATTACHMENT D – Typical Section

ATTACHMENT E – Land Use Map

Project Study Report
(Environmental Only) Cost Estimate

(NOT TO BE USED FOR CAPITAL COST PROGRAMING PURPOSES)

A1-EAST ALTERNATIVE

District-County-Route: 01-MEN-101
KP(PM): 14.2/22.5 (8.8/14.0)
Expenditure Authorization: 01-29210K
Program Code: IRS-HE14

PROJECT DESCRIPTION:

Limits: The project limits are from KP 14.2 to 22.5 (PM 8.8-14.0), approximately 8 kilometers in length. The project originates about 0.4 km south of the Russian River Bridge and ends about 5 km north of Route 175.

Proposed Improvement (Scope): The proposed improvement is to bypass Hopland, upgrading Route 101 from a 2-lane to a 4-lane facility. The proposed A-1 East Alternative runs parallel to Route 101 on the east side of Sanel Valley in the hills to the east of East Side Road and the community of Old Hopland.

Alternate: A1-East Alternative

SUMMARY OF ESTIMATED COST

(In million of dollars)

TOTAL ROADWAY ITEMS	$ 63
TOTAL STRUCTURE ITEMS	$ 25
SUBTOTAL CONSTRUCTION COSTS	**$ 88**
TOTAL RIGHT OF WAY ITEMS	$ 15
TOTAL PROJECT CAPITAL OUTLAY COSTS	**$ 103**

Reviewed By District Program Manager _____
(Signature)

Approved By Project Manager _____ Date_____
(Signature)

ATTACHMENT F

Project Study Report
(Environmental Only) Cost Estimate
(NOT TO BE USED FOR CAPITAL COST PROGRAMING PURPOSES)

A2-WEST ALTERNATIVE

District-County-Route: 01-MEN-101
KP(PM): 14.2/22.5 (8.8/14.0)
Expenditure Authorization: 01-29210K
Program Code: IRS-HE14

PROJECT DESCRIPTION:

Limits: The project limits are from KP 14.2 to 22.5 (PM 8.8-14.0), approximately 8 kilometers in length. The project originates about 0.4 km south of the Russian River Bridge and ends about 5 km north of Route 175.

Proposed Improvement (Scope): The proposed improvement is to bypass Hopland, upgrading Route 101 from a 2-lane to a 4-lane facility. The proposed A-2 West Alternative alignment runs parallel to Route 101 through the hills west of the community of Hopland.

Alternate: A2-West Alternative

SUMMARY OF ESTIMATED COST

(In million of dollars)

TOTAL ROADWAY ITEMS	$ 84
TOTAL STRUCTURE ITEMS	$ 40
SUBTOTAL CONSTRUCTION COSTS	**$ 124**
TOTAL RIGHT OF WAY ITEMS	$ 17
TOTAL PROJECT CAPITAL OUTLAY COSTS	**$ 141**

Reviewed By District Program Manager _____
(Signature)

Approved By Project Manager _____ Date_____
(Signature)

Project Study Report (Environmental Only) Cost Estimate

(NOT TO BE USED FOR CAPITAL COST PROGRAMING PURPOSES)

A3-VALLEY ALTERNATIVE

District-County-Route: 01-MEN-101
KP (PM) 14.2/22.5 (8.8/14.0)
Expenditure Authorization: 01-29210K
Program Code: IRS-HE14

PROJECT DESCRIPTION:

Limits: The project limits are from KP 14.2 to 22.5 (PM 8.8-14.0), approximately 8 kilometers in length. The project originates about 0.4 km south of the Russian River Bridge and ends about 5 km north of Route 175.

Proposed Improvement (Scope): The proposed improvement is to bypass Hopland, upgrading Route 101 from a 2-lane to a 4-lane facility. The proposed A-3 Valley Alternative alignment runs parallel to Route 101 through Sanel Valley, to the east of Hopland and between Hopland and the Russian River.

Alternate: A3-Valley Alternative

SUMMARY OF ESTIMATED COST

(In million of dollars)

TOTAL ROADWAY ITEMS	$ 70
TOTAL STRUCTURE ITEMS	$ 26
SUBTOTAL CONSTRUCTION COSTS	**$ 96**
TOTAL RIGHT OF WAY ITEMS	$ 6
TOTAL PROJECT CAPITAL OUTLAY COSTS	**$ 102**

Reviewed By District Program Manager _____
(Signature)

Approved By Project Manager _____ Date_____
(Signature)

Design Scoping Checklist

A1-EAST ALTERNATIVE

Project Information

District: 01
County: Mendocino
Route: 101
Kilometer Post (Post Mile): 14.2-22.5 (8.8-14.0)
EA: 29210K

Description: Bypass Hopland-Upgrade to 4-Lane Facility from the Russian River Bridge approximately 3 km south of Hopland to approximately 5 km north of Hopland. The East alignment runs parallel to Route 101 in the hills to the east of East Side Road, east of the community of Old Hopland.

Project Manager:	Karen Tatman	Phone # 8-457-5331
Project Engineer:	Ilene Poindexter	Phone # 8-538-6602
Design Functional Manager:	Mike Eagan	Phone # 8-538-6320
Project Development Coordinator:	Bert Wythe	Phone # 8-538-6672

Project Screening

1. Project Description as Noted in Regional Transportation Plan: Hopland Bypass

2. Project Setting: Narrow river valley with rolling hills to mountains.

   Rural or Urban rural

   Current land uses agricultural, residential

   Adjacent land uses agricultural, residential, commercial
   (industrial, light industry, commercial, agricultural, residential, etc.)

   Existing landscaping/planting natural, vineyard, orchards

ATTACHMENT G

Description of the Transportation Problem

Existing Route 101 to the immediate south and north of Hopland, is a conventional two-lane highway posted at 55 mph. Route 101 through Hopland is a two-lane road with a center turning median. Posted speed through Hopland is 35 mph. The intersection of Routes 101 and 175 occurs in town at an at-grade intersection. Problems with the existing route include operational conflicts, level of service concerns, delays and safety concerns.

Construction of a four-lane bypass would separate local traffic from interregional traffic thus virtually eliminating operational conflicts. A bypass would provide a level of service of "C" or greater through the next 20 years. Delays due to congestion and operational conflicts would be reduced. It is anticipated traffic accidents would decline with the removal and separation of conflicting traffic and pedestrian movements.

Proposed Scope of Work

The proposed bypass alternative runs parallel to Route 101 on the east side of the Sanel Valley. The route lies east of East Side Road and Old Hopland then crosses over the Russian River to rejoin the existing 101 near the State Department of Forestry fire station north of Hopland. The alignment includes a standard width four-lane divided median roadway and a diamond interchange at the Route 101/175 intersection. The route crosses the Russian River and the associated floodplain with a combination of bridge structures and embankment.

Design Criteria

Design Speed for highway facilities within the project limit?

Freeway 110 kph Highway 105 kph Local Street 55 kph

Design Period: Construction year is 2008 Design year is 2028
Design Capacity: Level of Service to be maintained over the design period is?

Mainline C Ramp C Local Street C Weaving Sections C

Design Vehicle Selection?
STAA X California _____ Bus_____

Proposed Roadbed and Structure Widths

Forecasted Average Daily Traffic Volumes 20,000

	Roadbed Width		Structure Width	
	Proposed (m)	Standard (m)	Proposed (m)	Standard (m)
State highway				
Lane Widths	3.6	3.6	3.6	3.6
Left Shoulder	1.5	1.5	1.5	1.5
Right Shoulder	3.0	3.0	3.0	3.0
Median	13.8	18.6	13.8	18.6
Bicycle Lane	n/a	n/a	n/a	n/a

	Roadbed Width		Structure Width	
	Proposed (m)	Standard (m)	Proposed (m)	Standard (m)
Local Street				
Lane Widths	3.6	3.6	3.6	3.6
Left Shoulder	1.2	1.2	1.2	1.2
Right Shoulder	1.2	1.2	1.2	1.2
Median Width	n/a	n/a	n/a	n/a
Bicycle Lane	n/a	n/a	n/a	n/a

Any proposed roadbed widths less than standard will be discussed with the Project Development Coordinator to determine if the proposed non-standard feature results in a feasible project alternative for further study during preparation of the environmental document.

Roadway Design Scoping

Mainline Operations

Mainline Highway Bypass

Existing pavement to be rehabilitated with n/a mm overlay.
Widen existing 2 lane facility to 4 lanes. R/W acquisition for 6 lanes.
Local street structures to span 6 lanes of highway (for future requirements).
Upgrade Bypass facility to: ❑ Controlled Access Conventional Highway
■ Expressway Standards ■ Freeway Standards
❑ Vertical Clearance Deficiencies ❑ Adequate Falsework Clearance

Ramp/Street Intersection Improvements

❑ New Signals	❑ Modify Signals
❑ Right Turn Lanes	❑ Widening For Localized Through Lanes
❑ Merging Lanes	❑ Deceleration / Acceleration Lanes
❑ Left Turn Lanes	❑ > 300 Left Turn VPH (Requires Double Left Turn)
❑ Interchange Spacing	■ Ramps Intersect Local Street < 4 % Grade
❑ Intersection Spacing	❑ Single Lane Ramps Exceeding 300 M Widened To Two Lanes
	❑ Exit Ramps > 1,500 VPH Designed As Two Lane Exit

❑ Other_____

Operational Improvements

Truck Climbing Lane
❑ Sustained Grade Exceeding 2% And Total Rise Exceeds 15 M.
Auxiliary Lanes
❑ When , 600 M Between Successive On-Ramps.
❑ Two Lane Exit Ramps Have 400 M Auxiliary Lane.
❑ Weaving < 500 M between Off-Ramp and On-Ramp.
❑ Other_____

Right of Way Access Control

❑ Existing access control extends at least 15 m beyond end of curb return, radius or taper.
■ New construction access control extends at least 30 m (urban areas) or 100 m (rural areas) beyond end of curb returns, radius or taper.
❑ Other_____

Roadside Design Scoping

Highway Planting

❑ Replacement
■ Median
■ Mitigation

Safety

❑ Off-Freeway Access
❑ Maintenance Vehicle Pull-Out

Roadside Management

- ❑ Slope paving
- ■ Gore paving
- ❑ Roadside paving

Stormwater

- ■ Erosion control
- ■ Drainage
- ■ Slope design

Preliminary Evaluation provided by:

Project Engineer_____ Date _____

Design Manager _____ Date _____

Design Concept reviewed and concurred with by:

Project Development Coordinator _____ Date _____

Reviewed by:

Project Manager _____ Date _____

Design Scoping Checklist

A2-WEST ALTERNATIVE

Project Information

District: 01
County: Mendocino
Route: 101
Kilometer Post (Post Mile): 14.2/22.5 (8.8/14.0)
EA: 29210K

Description: Bypass Hopland-Upgrade to 4-lane facility from the Russian River Bridge approximately 3 km south of Hopland to approximately 4 km north of Hopland. The West alignment runs parallel to Route 101 in the hills to the west Route 101, and west of the community of Hopland.

Project Manager:	Karen Tatman	Phone # 8-457-5331
Project Engineer:	Ilene Poindexter	Phone # 8-538-6602
Design Functional Manager:	Mike Eagan	Phone # 8-538-6320
Project Development Coordinator:	Bert Wythe	Phone # 8-538-6672

Project Screening

1. Project Description as Noted in Regional Transportation Plan: Hopland Bypass

2. Project Setting: Narrow river valley with rolling hills to mountains.

   Rural or Urban rural

   Current land uses agricultural, residential

   Adjacent land uses agricultural, residential, commercial
   (industrial, light industry, commercial, agricultural, residential, etc.)

   Existing landscaping/planting natural, vineyard, orchards

Description of the Transportation Problem

Existing Route 101 to the immediate south and north of Hopland, is a conventional two-lane highway posted at 55 mph. Route 101 through Hopland is a two-lane road with a center turning median. Posted speed through Hopland is 35 mph. The intersection of Routes 101 and 175 occurs in town at an at-grade intersection. Problems with the existing route include operational conflicts, level of service concerns, delays and safety concerns.

Construction of a four-lane bypass would separate local traffic from interregional traffic thus virtually eliminating operational conflicts. A bypass would provide a level of service of "C" or greater through the next 20 years. Delays due to congestion and operational conflicts would be reduced. It is anticipated traffic accidents would decline with the removal and separation of conflicting traffic and pedestrian movements.

Proposed Scope of Work

The proposed Bypass alternative runs parallel to Route 101 on the west side of the Sanel Valley west of Hopland to rejoin the existing 101 near the State Department of Forestry fire station north of Hopland. The alignment includes a standard width four-lane divided median roadway and a diamond interchange south of Hopland.

Design Criteria

Design Speed for highway facilities within the project limit?

Freeway 110 kph Highway 110 kph Local Street 75 kph

Design Period: Construction year is 2008 Design year is 2028

Design Capacity: Level of Service to be maintained over the design period is?

Mainline C Ramp C Local Street C Weaving Sections C

Design Vehicle Selection?

STAA X California _____ Bus _____

Proposed Roadbed and Structure Widths

Forecasted Average Daily Traffic Volumes 20,000

	Roadbed Width		Structure Width	
	Proposed (m)	Standard (m)	Proposed (m)	Standard (m)
State highway				
Lane Widths	3.6	3.6	3.6	3.6
Left Shoulder	1.5	1.5	1.5	1.5
Right Shoulder	3.0	3.0	3.0	3.0
Median	13.8	18.6	13.8	18.6
Bicycle Lane	n/a	n/a	n/a	n/a

	Roadbed Width		Structure Width	
	Proposed (m)	Standard (m)	Proposed (m)	Standard (m)
Local Street				
Lane Widths	3.6	3.6	3.6	3.6
Left Shoulder	1.2	1.2	1.2	1.2
Right Shoulder	1.2	1.2	1.2	1.2
Median Width	n/a	n/a	n/a	n/a
Bicycle Lane	n/a	n/a	n/a	n/a

Any proposed roadbed widths less than standard should be discussed with the Project Development Coordinator to determine if the proposed non-standard feature results in a feasible project alternative for further study during preparation of the environmental document.

Roadway Design Scoping

Mainline Operations

Mainline Highway Bypass

Existing pavement to be rehabilitated with n/a mm overlay.

Widen existing 2 lane facility to 4 lanes. R/W acquisition for 6 lanes.

Local street structures to span 6 lanes of highway (for future requirements).

Upgrade bypass to:

- ■ Expressway Standards
- ❑ Vertical Clearance Deficiencies
- ❑ Controlled Access Conventional Highway
- ■ Freeway Standards
- ❑ Adequate Falsework Clearance

Ramp / Street Intersection Improvements

❑ New Signals	❑ Modify Signals
❑ Right Turn Lanes	❑ Widening For Localized Through Lanes
❑ Merging Lanes	❑ Deceleration / Acceleration Lanes
❑ Left Turn Lanes	❑ > 300 Left Turn VPH (Requires Double Left Turn)
❑ Interchange Spacing	■ Ramps Intersect Local Street < 4 % Grade
❑ Intersection Spacing	❑ Single Lane Ramps Exceeding 300 M Widened To Two Lanes
	❑ Exit Ramps > 1,500 pH Designed As Two Lane Exit

❑ Other_____

Operational Improvements

Truck Climbing Lane
■ Sustained Grade Exceeding 2% And Total Rise Exceeds 15 M.
Auxiliary Lanes
❑ When , 600 M Between Successive On-Ramps.
❑ Two Lane Exit Ramps Have 400 M Auxiliary Lane.
❑ Weaving < 500 M between Off-Ramp and On-Ramp.
❑ Other_____

Right of Way Access Control

❑ Existing access control extends at least 15 m beyond end of curb return, radius or taper.
■ New construction access control extends at least 30 m (urban areas) or 100 m (rural areas) beyond end of curb returns, radius or taper.
❑ Other_____

Roadside Design Scoping

Highway Planting

❑ Replacement
■ Median
■ Mitigation

Safety

❑ Off-Freeway Access
❑ Maintenance Vehicle Pull-Out

Roadside Management

- ❑ Slope paving
- ■ Gore paving
- ❑ Roadside paving

Stormwater

- ■ Erosion control
- ■ Drainage
- ■ Slope design

Preliminary Evaluation provided by:

Project Engineer_____ Date _____

Design Manager _____ Date _____

Design Concept Design Concept reviewed and concurred with by:

Project Development Coordinator _____ Date _____

Reviewed by:

Project Manager _____ Date _____

Caltrans Metric

Design Scoping Checklist

A3-VALLEY ALTERNATIVE

Project Information

District: 01
County: Mendocino
Route: 101
Kilometer Post (Post Mile): 14.2/22.5 (8.8/14.0)
EA: 29210K

Description: Bypass Hopland-Upgrade to 4-lane facility from the Russian River Bridge approximately 2 km south of Hopland to approximately 5 km north of Hopland. The

Valley alignment runs parallel to Route 101 through Sanel Valley, between the community of Hopland and the Russian River.

Project Manager:	Karen Tatman	Phone # 8-457-5331
Project Engineer:	Ilene Poindexter	Phone # 8-538-6602
Design Functional Manager:	Mike Eagan	Phone # 8-538-6320
Project Development Coordinator:	Bert Wythe	Phone # 8-538-6672

Project Screening

1. Project Description as Noted in Regional Transportation Plan: Hopland Bypass

2. Project Setting: Narrow river valley with rolling hills to mountains.

   Rural or Urban rural

   Current land uses agricultural, residential

   Adjacent land uses agricultural, residential, commercial
   (industrial, light industry, commercial, agricultural, residential, etc.)

   Existing landscaping/planting natural, vineyard, orchards

Description of the Transportation Problem

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Construction of a four-lane bypass would separate local traffic from interregional traffic thus virtually eliminating operational conflicts. A bypass would provide a level of service of "C" or greater through the next 20 years. Delays due to congestion and operational conflicts would be reduced. It is anticipated traffic accidents would decline with the removal and separation of conflicting traffic and pedestrian movements.

Proposed Scope of Work

The proposed bypass alternative runs parallel to Route 101 through the Sanel Valley west of the Russian River and east of Hopland. The alignment includes a standard width four-lane divided median roadway and a diamond interchange at the Route 101/175 intersection. The route crosses through the Sanel Valleys farmed floodplain on an embankment.

Design Criteria

Design Speed for highway facilities within the project limit?

Freeway 110 kph Highway 110 kph Local Street 75 kph

Design Period: Construction year is 2008 Design year is 2028

Design Capacity: Level of Service to be maintained over the design period is?
Mainline C Ramp C Local Street C Weaving Sections C

Design Vehicle Selection?
STAA X California _____ Bus_____

Proposed Roadbed and Structure Widths

Forecasted Average Daily Traffic Volumes 20,000

	Roadbed Width		Structure Width	
	Proposed (m)	Standard (m)	Proposed (m)	Standard (m)
State highway				
Lane Widths	3.6	3.6	3.6	3.6
Left Shoulder	1.5	1.5	1.5	1.5
Right Shoulder	3.0	3.0	3.0	3.0
Median	13.8	18.6	13.8	18.6
Bicycle Lane	n/a	n/a	n/a	n/a

	Roadbed Width		Structure Width	
	Proposed (m)	Standard (m)	Proposed (m)	Standard (m)
Local Street				
Lane Widths	3.6	3.6	3.6	3.6
Left Shoulder	1.2	1.2	1.2	1.2
Right Shoulder	1.2	1.2	1.2	1.2
Median Width	n/a	n/a	n/a	n/a
Bicycle Lane	n/a	n/a	n/a	n/a

Any proposed roadbed widths less than standard should be discussed with the Project Development Coordinator to determine if the proposed non-standard feature results in a feasible project alternative for further study during preparation of the environmental document.

Roadway Design Scoping

Mainline Operations

Mainline Highway Bypass
Existing pavement to be rehabilitated with n/a mm overlay.
Widen existing 2 lane facility to 4 lanes. R/W acquisition for 6 lanes.
Local street structures to span 6 lanes of highway (for future requirements).
Upgrade existing facility to: ❑ Controlled Access Conventional Highway
■ Expressway Standards ■ Freeway Standards
❑ Vertical Clearance Deficiencies ❑ Adequate Falsework Clearance

Ramp/Street Intersection Improvements

❑ New Signals	❑ Modify Signals
❑ Right Turn Lanes	❑ Widening For Localized Through Lanes
❑ Merging Lanes	❑ Deceleration / Acceleration Lanes
❑ Left Turn Lanes	❑ > 300 Left Turn VPH (Requires Double Left Turn)
❑ Interchange Spacing	■ Ramps Intersect Local Street < 4 % Grade
❑ Intersection Spacing	❑ Single Lane Ramps Exceeding 300 M Widened To Two Lanes
	❑ Exit Ramps > 1,500 VPH Designed As Two Lane Exit

❑ Other_____

Operational Improvements

Truck Climbing Lane
❑ Sustained Grade Exceeding 2% And Total Rise Exceeds 15 M.
Auxiliary Lanes
❑ When , 600 M Between Successive On-Ramps.
❑ Two Lane Exit Ramps Have 400 M Auxiliary Lane.
❑ Weaving < 500 M between Off-Ramp and On-Ramp.
❑ Other_____

Right of Way Access Control

❑ Existing access control extends at least 15 m beyond end of curb return, radius or taper.
■ New construction access control extends at least 30 m (urban areas) or 100 m (rural areas) beyond end of curb returns, radius or taper.
❑ Other_____

Roadside Design Scoping

Highway Planting

❑ Replacement
❑ Median
■ Mitigation

Safety

❑ Off-Freeway Access
❑ Maintenance Vehicle Pull-Out

Roadside Management

- ❑ Slope paving
- ■ Gore paving
- ❑ Roadside paving

Stormwater

- ■ Erosion control
- ■ Drainage
- ■ Slope design

Preliminary Evaluation provided by:

Project Engineer_____ Date _____

Design Manager _____ Date _____

Design Concept Design Concept reviewed and concurred with by:

Project Development Coordinator _____ Date _____

Reviewed by:

Project Manager _____ Date _____

Caltrans Metric

Environmental Scoping Checklist

A1-EAST, A2-WEST AND A3-VALLEY ALTERNATIVE

Project Information

District: 01 County: Men Route: 101 KP (PM): 14.2/22.5 (8.8/14.0) EA: 29210K

Description: Construct four-lane freeway (or freeway and expressway) bypass of the Hopland community on Route 101 in southern Mendocino County. The Project Study Report includes three build alternatives: West Alignment, Valley Alignment, and East Alignment. The Valley and East alignments include an interchange with State Route 175. The West Alignment includes an interchange that connects with the existing Route 101.

Project Manager: Karen Tatman Phone # CALNET 8-457-5331
Project Engineer: Ilene Poindexter Phone # CALNET 8-538-6602
Environmental Functional Manager: Deborah Harmon Phone # CALNET 8-538-6416

Seismicity, Liquefaction, Slides-The Maacama fault, an active fault and part of the San Andreas Fault subsystem, is in close proximity to Hopland and is parallel to the existing Route 101 alignment. According to a 1996 U. S. Geological Survey study, there is a potential for a magnitude 6.9 to 7.1 earthquake with an effective recurrence time of 220 years along this fault. A geotechnical study would likely be required as a basis for special design considerations of any new structures for any of the three alignments.

Hazardous Waste/Materials-See attached preliminary site list and map.

Floodplain-The West Alignment would be built on elevated fill slopes within the Russian River 100-year floodplain except where it crosses foothills. The Valley Alignment is almost entirely within the Russian River 100-year floodplain except for when the alignment crosses foothills at the north end of the alignment. Since the Valley Alignment would be built almost entirely on an elevated fill, the potential flooding risks and effect to the natural and beneficial floodplain values would be the most severe of the three alignments. Drainage features incorporated in the roadway designed to perpetuate the existing drainage could offset substantial negative impacts. The East Alignment would encroach on the 100-year floodplain at Dooley Creek and the Russian River at the north segment of the alignment. This alignment would span these two watercourses on structures; thus the encroachment would not be as substantial as the West and Valley

Alignments. Any alignment would require a floodplain evaluation report to address flooding risks and changes in hydrology/drainage.

A proposed project that includes a significant encroachment shall not be approved unless the

FHWA finds that the proposed significant encroachment is the only practicable alternative (23 CFR 650). This finding is included in the Final Environmental Document (FEIS or FONSI) and must be supported by the following information

- The reasons why the proposed action must be located in the floodplain;
9. The alternatives considered and why they were not practicable;
10. A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

Water Quality, Erosion, and Groundwater Aquifer Recharge Issues-The Hopland Bypass alternatives are located within, and adjacent to, the Sanel Valley. According to the Mendocino County General Plan, the Sanel Valley is one of ten groundwater basins in Mendocino County. A hydrology or water quality study may be needed to determine if there are any aquifers near or on any of the alignments. Constructing a new roadway could create an impermeable barrier over an aquifer and could individually or cumulatively result in a substantial impact. A water quality report would be required to address potential water quality issues such as the potential for increased sedimentation within the Russian River or its tributaries.

Measures to minimize harm would include standard erosion control measures and directing roadway run-off to detention basins and, if appropriate, water aquifer recharge areas.

Air Quality-The proposed project is located in the North Coast Air Basin (NCAB) as designated by the California Air Resources Board (CARB) and the North Coast Interstate Air Quality Region. Monitoring data collected by the CARB indicates that vehicle emissions are not a serious problem in the NCAB and the air quality is well within State and Federal Standards for carbon monoxide, oxidants, and nitrogen dioxide. Particulate matter is the major air pollutant in the NCAB. Motor vehicles contribute only 2.5% to the total amount. Hence any small change in motor vehicle particulate emissions will have little effect on overall particulate air pollution. As such, none of the Hopland Bypass alternatives are likely to be inconsistent with the State Implementation Plan.

Noise and Vibration-A noise and vibration study would be required for proposed construction and post-construction activities. An increase in traffic volumes and speeds would result in a substantial noise increase for alignments that diverge from the existing Route 101 alignment.

The wineries in the Hopland area are privately owned and are considered a manufacturing/industrial land use. And although they attract tourists and often have picnic grounds and gardens, they are not considered sensitive noise receptors.

The West Alignment would be elevated near Hopland School. Both the classroom interiors and the outdoor recreation areas would be considered sensitive noise receptors. The existing Hopland business district may experience a substantial increase in noise if the West Alignment was located to the west and elevated along the hillside above the

town. Trucks ascending and descending mountainous grade could generate substantial noise. The roadway location relative to the topography and distance from town would be primary factors influencing the level of traffic noise experienced in Hopland. This alignment is also in close proximity of several rural residences that may substantially be affected by traffic noise.

The Valley Alignment would also raise traffic noise in Hopland since it would be parallel to the existing Route 101 alignment on a fill slope.

The East Alignment will likely be close to the Old Hopland cemetery and to residences in Old Hopland. The Hopland University of California Research and Extension Center facilities and Hopland Indian reservation residences are probably too far away from the East Alignment to experience substantial traffic noise increases. The section of the East Alignment which crosses the Russian River floodplain on the north end of the alignment could generate traffic noise that would travel both north and south within the Sanel Valley.

A combination of sound walls or installing double-paned glass windows may substantially minimize traffic noise within buildings. Sound walls may be feasible for highway segments near Old Hopland or Hopland; they would not be feasible at low-density residence locations.

Ground vibration during construction activities could damage historic and other sensitive structures. A vibration study would be needed to determine whether any sensitive structures are in close proximity to construction activities that generate high ground vibrations.

Biological Resources-Section 7 Endangered Species Act consultation with the National Marine Fisheries Service for coho, steelhead, and possibly Chinook would be required for any work planned within or adjacent to the Russian River or its tributaries. The Northern spotted owl may pose an additional Section 7 consultation requirement. Coordination may require six to eight months to complete prior to environmental document approval. Measures to minimize harm may include working within a construction window to avoid migrating anadromous fish. Jurisdictional wetland areas are likely within, or in close proximity to, one or more of the alignments; however, unavoidable adverse wetland impacts are not expected based on a cursory site visit and review of an aerial photograph. Streams and rivers are also sensitive biological resources. Oak tree removal would likely be an issue for all three alignments. (See attached project location map for sensitive biological areas.) Purchasing oak woodland offsite may be a required mitigation measure.

Cultural Resources-The three alternatives discussed in this section conform to descriptions and alignments developed as of December 14, 1998. Cultural resource surveys for the proposed project will include: 1) archaeological – for both prehistoric and historic resources, 2) historic architectural, and 3) a historic resource evaluation of the Northwestern Pacific Railroad. A project study area and the Area of Potential Effects (APE) will be developed in consultation with the FHWA and the State Historic

Preservation Officer (SHPO). Prior to field work, a record search will be conducted at the Northwest Information Center of the California Historic Resource Information System; concurrently, background literature will be reviewed. Consultation regarding cultural resources will be required with the California Native American Heritage Commission, the Hopland Reservation, the Mendocino County Historical Society, and other interested parties.

Route 101 bridges within the project limits (10-003 - Feliz Creek; 10-081 – Hopland Overhead; 10-082 – Russian River; and 10-087 – Rosetti Creek) are all listed as Category 5 on the Caltrans Historic Bridge Inventory. While these bridges were not eligible for inclusion on the National Register of Historic Places in 1987, each may need to be reevaluated if they are to be altered or removed by the proposed project.

Only one resource in the Sanel Valley is included in any State or Federal historic property list.
The Thatcher Hotel – 13401 Route 101, was determined eligible for inclusion on the NRHP in 1982 (see the attached project location map). No other properties are listed on, or have been determined eligible for, the NRHP (National Register of Historic Places) or the California Register of Historical Resources. Similarly, no other properties are listed on the California Inventory of Historic Places, the California Historical Landmarks, or the California Points of Historical Interest.

If the proposed project affects one or more archaeological sites that are also contaminated by hazardous waste, substantial cost and delay could result.

Alternative Specific Review of Cultural Resources-

- West Alternative-Two prehistoric archaeological sites are recorded within the proposed project right-of-way. At least seven other locations have a high probability for prehistoric archaeological resources based on ethnographic literature and on field investigation conducted in similar areas in southern Mendocino County.

The west edge of the community of Hopland is within the proposed right-of-way; a historic architectural evaluation will be required of buildings within the proposed project Area of Potential Effects. Hopland may have the potential to be eligible for the NRHP as a historic district.

The archaeological remains of Fernando Feliz's 1850s adobe house may be within the project alignment. Additional historic archaeological resources may be associated with historic ranch properties and refuse disposal for Hopland.

The Northwestern Pacific Railroad line will have to be evaluated. This investigation may be completed as part of the current Willits Bypass project.

According to the preliminary hazardous waste/materials survey, sites W1 through W5 on the attached preliminary site map may be in close proximity to known archaeological sites. There may be other locations where hazardous waste/materials concerns occur near undocumented archaeological or historic sites.

- Valley Alternative-At least five locations have a high probability for prehistoric archaeological resources based ethnographic literature and on field investigation conducted in similar areas in southern Mendocino County.

The archaeological remains of Fernando Feliz's 1850s adobe house may be within the project alignment; additional historic archaeological resources may be associated with historic ranch properties and refuse disposal for Hopland.

The Northwestern Pacific Railroad line will have to be evaluated; this investigation may be completed as a part of the current Willits Bypass project.

- East Alternative-One prehistoric archaeological site is recorded within the proposed right-of-way. At least eight other locations have a high probability for prehistoric archaeological resources based ethnographic literature and on field investigation conducted in similar areas in southern Mendocino County.

The archaeological remains of Fernando Feliz's 1850s adobe house may be within the project alignment. Additional historic archaeological resources may be associated with historic ranch properties and refuse disposal for Hopland.

The community of Old Hopland is nearby to the west of the proposed project. This community may be considered within the project APE for visual and noise effects. A historic architectural evaluation will be required of buildings within the proposed project Area of Potential Effects. Old Hopland may have the potential to be eligible for the NRHP as a historic district.

The Northwestern Pacific Railroad line will have to be evaluated. This investigation may be completed as a part of the current Willits Bypass project.

Archaeological sites within or adjacent to the Selected Alternative and requiring test excavations would add two to three years to the environmental process. Any right-of-way acquisition from any parcel containing buildings found eligible for the National Register of Historic Places or the California Register of Historical Resources would likely require the preparation of at least a Negative Declaration, State Office of Historic Preservation

involvement, and a Section 4(f) Statement. The 4(f) Statement would require developing an alternative to avoid utilizing land from a National Register eligible historic site.

Traffic-At this stage of environmental analysis, there do not appear to be any substantial adverse effects to the local and regional transportation system. However, a bypass project would require a traffic study of the following issues:

- Alteration of local traffic circulation patterns;
- The effect on access for residents, tourists, pedestrians, bicyclists, and persons with disabilities;
- Public parking location, access, and availability;
- Public transit routes, access, stops;
- Generate additional traffic;
- Emergency service vehicle access and potential delays;
- Potential future intermodal connection considerations with the Northwestern Pacific Railroad.

Visual Effects-The proposed Hopland Bypass Project is situated in both a rural/agricultural and rural/oak woodland corridor. Even though the Russian River is not a designated Wild and Scenic River, public river recreation access and the visual setting of the river may be critical issues.

A Visual Impact Assessment will be required for all alignments that are to be considered for this project. A Visual Impact Assessment report with mapping will identify the locations of significant visual resources; identify and quantify potential impacts, and point out areas of high and low priority. The inventory of visual resources may include:

- Positive and negative views;
- Rock outcroppings;
- Cut and fill impacts;
- Specimen trees and heritage oak trees.

The inventory should also include opinions generated through public involvement to understand what qualities are important to the local constituents such as the following:

- Loss or visual alteration of open space;
- Shading, glare, obtrusive lighting, vehicle headlights;
- Changes in topography or land form;
- Buildings that contribute to the rustic setting but would be demolished for the freeway;
- The general presence of freeway volumes of traffic in a rural setting: obtrusive roadway structures, bridges, embankment sections, retaining walls, traffic signs, sound walls, etc.

The assessment would be used to design mitigation measures by showing the areas of high and low visual impact. Mitigation can include avoiding, minimizing, and reducing impacts as well as rectifying or compensating for them. (The Biological Resources section of this

report discusses potential oak tree removal and mitigation.)

Agricultural land conversion-Most of the level, undeveloped Sanel Valley adjacent to the three alignments is in agricultural use. In addition, most of the agricultural land within the project limits are vineyards and protected by the California Land Conservation Act of 1965 (Williamson Act) contracts. The existing agricultural land adjacent to the alignments could qualify as prime or unique agricultural land as defined by the California Department of Conservation's Office of Land Conservation, *A Guide to the Farmland Mapping and Monitoring Program*.

Conversion of farmland for highway construction and roadway maintenance would be substantial for all three alignments. The Valley Alignment would be almost entirely within farmland, but any of the three alignments would likely reduce, fragment, or isolate otherwise viable farmland remaining after freeway construction because of equipment access and irrigation problems and other factors affecting commercial agricultural production. The cumulative result could be large areas of unusable farmland for any of the alignments.

For any alignment an identification of impacts on agricultural lands and on prime and unique farmland would be required. This would be accomplished by completing the USDA Natural Resource Conservation Service Form AD 1006 evaluation in compliance with the Farmland Protection Policy Act. If the rating on the Form AD 1006 exceeds a threshold score, Caltrans must consider alternatives that avoid or minimize impacts as to reduce the score. Also coordination with the USDA and California Department of Conservation may be required.

The conversion of prime farmland to other uses may be an unavoidable significant impact. Under those circumstances, to satisfy the findings under CEQA, decision-makers would be required to conclude that social or economic factors do not make it feasible to mitigate the conversion.

Vineyards and wineries attract tourists, are important to the local and regional economy, and provide open space. According to the 1986 Mendocino County General Plan, "In most years, over half the agricultural income is produced on less than 1% of the County land. This income is primarily from pears and grapes."

Mitigation measures include placing a conservation easement on alternate farmland parcels and leasing roadside right-of-way for agricultural purposes where no immediate or near future need exists for the farmland's use for transportation.

Socio-economic and Community Effects-The current Route 101 alignment serves as the main street through the commercial core of Hopland. Highway-oriented businesses in Hopland could potentially experience a substantial loss of revenue after a bypass is constructed. Hopland businesses near and along the existing Route 101 alignment include a gas station, wineries, restaurants, a brewery, a casino, antique stores, and at least one bed and breakfast establishment.

The small size of Hopland, approximate population 1,000, could create a situation in which highway-oriented businesses are more vulnerable to the effects of a bypass. However, Hopland is a tourist destination which may help businesses overcome the potential loss of revenues from drive-through traffic. Strong visual and physical connections from a bypass to Old Hopland and Hopland may help offset the potential loss of business from traffic passing through. Soundwalls or building the bypass below grade may negatively affect highway-oriented businesses if motorists' views of their businesses are visually obstructed from the freeway.

The following list of anticipated issues generally are not considered major project impacts but could individually or in some combination generate substantial public controversy or even project opposition:

11. Loss of agricultural land could result in loss of jobs and lower the tax base;
12. The proposed right-of-way acquisition from private property owners;
13. Community character, stability, cohesion, way of life; the East Alignment may shift adverse transportation-related effects from Hopland to Old Hopland;
14. Direct and indirect effects to tourism;
15. The West Alignment could physically isolate the public school;
16. Cost-benefit and cost effectiveness of a bypass;
17. Potential actual or perceived loss of business from regional and interregional through traffic;
18. Effects on property values;

- Growth inducing impacts, including a potential shift in location where growth will occur, i.e. create increased pressure to develop land in a "leap-frog" growth pattern or open existing rural areas to urban sprawl and strip development;

19. Encourage increase in vehicle usage;
20. Native American/Environmental Justice issues concerning business, employment, housing, and resident displacement;
21. Decreasing the low/affordable-income housing stock would be critical;
22. Community facilities;

- Public services.

Other issues, which could be potentially controversial, could arise when public and interest groups are contacted regarding this project proposal.

A right-of-way relocation study is required and should address resident and business relocation issues, the project's potential effect on the local affordable housing stock and local employment. In order to determine the potential effect to low income, minority, or elderly local populations, relevant local demographic information should be obtained.

Public coordination in addition to the standard public hearing, such as public workshops, would likely help to resolve potential controversy or opposition.

Construction-Although construction effects are temporary, they may be substantial. Noise, vibration, dust, and traffic delays could result in a substantial decrease in tourist revenues and disruption to residences and businesses.

Anticipated Environmental Approval

CEQA	**NEPA**
❒ Categorical/Statutory Exemption	❒ Categorical Exclusion
❒ Negative Declaration	❒ Finding of No Significant Impact
☑ Environmental Impact Report	☑ Environmental Impact Statement

Why? The appropriate environmental documentation for this project would depend on the type of potential effects, if any, to cultural and biological resources. The conversion of prime or unique agricultural land for transportation use alone may necessitate a CEQA Environmental Impact Report. Visual, noise, and socio-economics are issues that could potentially generate a high magnitude of public opposition to the project. Based on the existing information at hand, the appropriate environmental document for both State and Federal regulation compliance would likely be an Initial Study/Environmental Assessment (IS/EA).

After the IS/EA document is completed, Caltrans and FHWA staff could make a determination with other public agencies regarding the final environmental document. If substantial formal public opposition to the project arises, or there appear to be substantial unavoidable environmental effects, an Environmental Impact Report/Study (EIR/S) would be required. Because of the magnitude of potential project effects and the project scope, an EIR/S would likely be the appropriate environmental document. The time from initiating environmental studies to final environmental document approval would require at least two to three years.

If public opposition is minimal and there are minimal effects to biological and cultural resources, a Negative Declaration/Finding of No Significant Impact (ND/FONSI) may be the appropriate document. The time from initiating environmental studies to final environmental document approval would require at least 18 to 24 months.

Caltrans would be the lead State agency and the Federal Highway Administration would be the lead Federal agency.

Project Screening

Attach the project location map to this checklist to show location of all known and/or potential hazardous waste, cultural (not archaeological) and biological sites identified. (Include any work with drainage and/or waterways.)

1. Project Features: New R/W? Yes Excavation? Yes
   Railroad Involvement? Yes Structure demolition/modification? Unknown
   Subsurface utility relocation? Unknown

2. Project Setting: Rural
Current land uses: Agricultural, residential, commercial, manufacturing/industrial, open space
Adjacent land uses: Same as current land uses
Existing landscaping/planting: Vineyards, street trees

Cultural Resources Screening

1. Check federal, state, and local environmental records and databases as necessary, to see if any known cultural resources site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project. (Do NOT show location of archaeological sites on the map.)

2. Conduct Field Inspection. Date: No recent survey conducted; however, an archaeological survey of eight bypass alternatives was conducted in 1974 as a part of the overall Route 101 realignment/widening project from Cloverdale to north of Hopland. While this survey provides a starting point for the current project, the fieldwork and report are incomplete: several parcels were not surveyed because of denied access; field coverage, site records resource types evaluated, and reporting are all inadequate when compared to current professional standards.
3. Other comments and/or observations: See Cultural Resources section of this Environmental Scoping Checklist.

Hazardous Waste Screening

Is the project on the HW Study Minimal-Risk Projects List (HW1)? No

~~1. Check federal, state, and local environmental and health regulatory agency records, as necessary, to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.~~ **~~See attached preliminary site list and map.~~**

~~2. Conduct Field Inspection. Date 12-10-98. Use the attached map to locate potential or known HW sites.~~

STORAGE STRUCTURES/PIPELINES:

Underground tanks	**Yes**	Surface tanks	**Yes**
Sumps		Ponds	
Drums		Basins	
Transformers		Landfill	

Other _____

CONTAMINATION: (spills, leaks, illegal dumping, etc.)

Surface staining _____ Oil sheen _____

Odors _____ Vegetation damage _____

Aerial lead _____ Other _____

HAZARDOUS MATERIALS: (asbestos, lead, etc.)

Structures **Yes** Spray-on fireproofing: **Potential**

Pipe wrap/Asbestos Cement Pipe **Potential** Friable tile **Potential**

Yellow thermoplastic paint **Potential** Serpentine **Potential**

Lead paint **Potential** Other _____

3. Additional record search, as necessary, of subsequent land uses that could have resulted in a hazardous waste site. Use the attached map to show the location of potential hazardous waste sites. **See attached preliminary site map.**

4. Other comments and/or observations: **See attached preliminary site list and map.**

Determination: Does the project have potential hazardous waste involvement? **Yes**
If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Preliminary Site Investigation? **Yes**
If "YES", then give an estimate of additional time required: **160 hours of effort**

Biological Resources Screening

~~1. Check federal, state, and local environmental records as necessary, to see if any known sensitive biological habitat or wetlands site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.~~

2. Conduct Field Inspection. Date 12-9-98 Use the attached map to locate potential or known endangered species, natural resource or wetland sites.

3. Other comments and/or observations: See Biological Resources section of this Environmental Scoping Checklist.

Environmental Technical Reports or Studies Required/Anticipated

Not		Study or Anticipated	Document Report	Text Only
	Community Impact Study*	☑	☐	☐
	Farmland*	☑	☐	☐
	Visual Resources	☑	☐	☐
	Water Quality	☑	☐	☐
	Floodplain Evaluation*	☑	☐	☐
	Noise/Vibration Study	☑	☐	☐
	Air Quality Study	☑	☐	☐
	Other:			
	Traffic (including traffic volume projections and projected intersection levels of service)	☑	☐	☐
	Geotechnical/Seismic	☑	☐	☐
☐	Energy	Unknown at this time		
	Business/Residential Relocation Study	Unknown at this time ☑	☐	☐
	Utility Relocation Study	☑	☐	☐
	Cost/Benefit Analysis	☑	☐	☐
	Alternatives, Design and Disposal site alternatives study	Unknown at this time		
	Cultural			
	ASR	☑	☐	☐
	HSR	☑	☐	☐
	HASR	☑	☐	☐
	Section 106/SHPO	☑	☐	☐
	Section 4(f) Evaluation	Unknown at this time		

Other	Study or	Document	
Not		Report	Text Only
Anticipated			
Hazardous Waste			
ISA (Additional)	☑	☐	☐
PSI	Unknown at this time		
Other	☐	☐	☐
	No. Of		
Biological			
Endangered Species (Federal)	3 ☑	☐	☐
Endangered Species (State)	☑	☐	☐
Biological Opinion/USFWS	☑	☐	☐
Wetlands	☑	☐	☐
401 Permit Coordination	☐	☐	☐
404 Permit Coordination	☑	☐	☐
1601 Permit Coordination	☑	☐	☐
NPDES Coordination (SWPPP)	☑	☐	☐
Natural Environment Study	☑	☐	☐
Biological Assessment	☑	☐	☐
NEPA 404 Coordination	☑	☐	☐
Other			

***A key study that may require consultant(s)**.

Anticipated Project Mitigation

Discuss any known likely mitigation requirements and coordination based on similar projects and experience with resource agencies within the project vicinity:

Estimate of Project Mitigation Costs Are: $600,000 for biological

$250,000** East Alignment for cultural

$750,000** West Alignment for cultural

**Cost estimates do not include possible contract costs for archaeological test excavations.

No anticipated mitigation cost for cultural resources on Valley Alignment.

Hazardous Waste Scoping by Jon Hedlund Date 12-17-98
Biological Scoping by Tim Ash Date 12-16-98
Cultural Scoping by Barry Douglas Date 12-15-98

Reviewed by _____ Date
Environmental Planning Office Chief

ENVIRONMENTAL SCOPING CHECKLIST ATTACHMENTS

- Initial Site Assessment for Hazardous Waste-Preliminary Site List
- Initial Site Assessment for Hazardous Waste-Preliminary Site Map
- Sensitive Environmental Resources

Traffic Forecasting, Analysis and Operations Scoping Checklist

A1-EAST, A2-WEST AND A3-VALLEY ALTERNATIVE

District: 01
County: Mendocino
Kilometer Post (Post Mile): 14.2/22.5 (8.8/14.0)
EA: 29210K

PROJECT DESCRIPTION:

Limits: The project limits are from KP 14.2 to 22.5 (PM 8.8-14.0), approximately 8 kilometers in length. The project originates about 0.4 km south of the Russian River Bridge and ends about 5 km north of Route 175.

Project Manager:	Karen Tatman	Phone #: 8-457-5331
Project Engineer:	Ilene Poindexter	Phone #: 8-538-6602
Traffic Forecasting Functional Manager:	Douglas MacIvor	Phone #: 8-457-4025
Traffic Operations Functional Manager:	Jim Graham	Phone #: 8-538-6377

Traffic Forecasting, Traffic Analysis Scoping

Existing Route 101 traffic volumes in the Hopland area (KP 14.2/22.5) range from an estimated 10,400 annual average daily traffic (AADT) south of East Side Road to 13,300 AADT north of the community of Hopland. Truck traffic is approximately 9% of overall traffic volumes, with over 1,100 trucks per day passing through the community of Hopland. Future Route 101 traffic volumes (20 years after construction or 2028) are expected to range between 20,000 and just over 25,000 in this area.

Route 101 through the community of Hopland currently operates at an "E" level of service during peaks. This is expected to deteriorate to "F" as traffic increases in the future (within the 20-year period).

It is anticipated that the Hopland Bypass project will require a local model (probably CorSim). We know of no regional traffic model for the Hopland area.

Preliminary operational analysis was based on existing traffic counts and assumptions on traffic turning movements. It is anticipated that more detailed counts, including turning movement counts at major intersecting roads, will be needed prior to initiating modeling efforts.

Project Screening

1. Project Features: New R/W? Yes Excavation? Yes
   New Signalization? No CMS work outside project limits? No

2. Project Setting: Agricultural valley, traversing small community.

   Rural or Urban: Rural

   Current land uses: Agricultural, rangeland, visitor serving commercial, residential

   Adjacent land uses Rangeland, remote residential, agricultural (industrial, light industry, commercial, agricultural, residential, etc.)

Existing Traffic Data Deficiencies

Attach the project location map to this checklist to show locations where existing and forecasted traffic operations are calculated to be below an acceptable level of service. Discuss potential scope of improvements to improve traffic operation deficiencies.

Mainline highway deficiencies Existing "E" level of service through Hopland. Expected to deteriorate to "F" within the 20-year period.

Ramp intersection deficiencies No existing ramps. No project ramp deficiencies.

Merge/diverge deficiencies None

Street intersection deficiencies Side street approaches to Route 101 in Hopland operate at level of service "D." These approaches are calculated to degrade to "F" level of service.

Weaving/merging (spacing) deficiencies None. The project will alleviate anticipated operational deficiencies.

Traffic Study and Analysis Anticipated

Traffic Modeling Assumptions

❑ Use Local Model	❑ Update New Model	■ New Model (CorSim)
❑ Existing Traffic Counts	■ New Traffic Counts	❑ Historical Growth
❑ GP Buildout	❑ Pro-Rate GP Growth	

■Existing Year (1998) ■ Design Year (2028) ■ Interim Year (2008) (Construction Year)

Other_____

Traffic Analysis

■ Mainline LOS ❑ Merge / Diverge LOS ■ Ramp Int. LOS

■ Adjacent IC LOS ❑ Ramp Metering (open) ❑ Ramp Metering (later)

■ Left/Right Turn Storage ■ Accident / Safety Analysis ■ Intersection Queues

■ Construction Staging ■ Project Staging

Other: Some of these analyses may prove to be unnecessary, but that determination should be made when the project is further along in the development process.

Traffic Operations Scoping

Traffic Operational Improvements

Attach the project location map to this checklist to show location of all traffic operations improvements anticipated.

❑ Auxiliary Lanes ■ Intersection Improvements ■ Truck Climbing Lane

❑ New Signals ❑ Modify Signals ❑ Merging Improvements

❑ Weaving Improvements ❑ Deceleration/Acceleration Lanes

Other: Highway safety lighting at interchanges/intersections. Left or right turn lanes may be required at certain intersections.

Traffic Management Systems

Attach the project location map to this checklist to show location of all traffic management systems identified.

❑ Ramp Meters ❑ HOV Ramp Bypass ❑ Mainline HOV Lanes

■ Detector Loops ❑ Communication Networks (fiber optic, telephone, etc.)

❑ Closed Circuit Television ❑ Changeable Message Sign ❑ Highway Advisory Radio

Other: Traffic monitoring station at each interchange.

Discuss strategies (technical analysis, public outreach, etc.) to secure local agency and public support to implement HOV lanes and ramp metering: Implementation is not anticipated.

Preliminary Traffic Forecasting Evaluation provided by:

Traffic Forecasting Guy Luther Date 12/21/98

Reviewed by:

Traffic Forecasting Chief Doug MacIvor Date

Preliminary Traffic Operations Evaluation provided by:

Traffic Operation Engineer John Carson Date 12/22/98

Traffic Electrical Engineer Scott Shipman Date 12/23/98

Reviewed by:

Traffic Operations Chief Jim Graham Date 12/29/98

Right of Way Scoping Checklist

(NOT TO BE USED FOR CAPITAL COST PROGRAMING PURPOSES)

A1-EAST ALTERNATIVE

Project Information

District: 01
County: Mendocino
Route: 101
Kilometer Post (Post Mile): 14.2/22.5 (8.8/14.0)
EA: 29210K

Description: Bypass Hopland-Upgrade to 4-lane facility from the Russian River Bridge approximately 3 km south of Hopland to approximately 5 km of Hopland.

Project Manager:	Karen Tatman	Phone #: 8-457-5331
Project Engineer:	Ilene Poindexter	Phone #: 8-538-6602
Right of Way Functional Manager:	Jim Hall	Phone #: 8-538-6405
Project Development Coordinator:	Bert Wythe	Phone #: 8-538-6672

Right of Way Scoping

Describe and identify in the following sections a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, access modifications, etc.). The right of way issues should be discussed in sufficient detail to determine a preliminary planing level cost of Right of Way and identify the project's sensitive acquisition issues. Any environmental mitigation that requires R/W cost should also be identified.

ATTACHMENT J

Anticipated Right of Way Acquisition

Anticipated number of Right of Way Parcels to be acquired:

	Preliminary Value*	Number of Parcels	Estimated Square Footage	Full Take	Partial Take
Business/ Non-Profit	0	1	0.50 ac.	---	1
Single Family Residences	4,304,000	10	16.4 ac. – R/W. 26.8 ac. excess	10	---
Multi Family Residences	---	---	---	---	---
Vacant Lot	413,000	2	4.4 ac. – R/W. 1.7 ac. excess	1	1
Farmland	9,451,000	12	150.2 ac. – R/W 43.5 ac. excess	1	11
Util	200,000				
RR	250,00)				
Totals	$14,618,000	25	171.5 ac. (69.4 ha) 72.0 ac. excess (29.1 ha)	12	13

* Note: Value includes contingency figure for RAP, Damages, Goodwill, Demolition, Construction Contract Work & Fees. Values escalated out 10 years at 4% year.

Project Screening

Attach the project location map to this checklist to show location of all right of way acquisition identified.

1. Project Features: New R/W? Yes Excavation? Yes
   Railroad Involvement? Yes Access Changes? Yes
   Structure demolition/modification? Yes Subsurface utility relocation? Possibly
2. Project Setting: The freeway skirts the town of Hopland.
   Rural or Urban: To the east, parcels are agriculture.
   Current land uses: Or rural residential.
   Adjacent land uses: Mostly agriculture or rural residential.

(industrial, light industry, commercial, agricultural, residential, etc.)

Right of Way Screening

Describe in detail and quantify any questions answered with a yes.

1) Are any utility facilities or rights of way affected Yes X No_____

PG&E, Pacific Bell and Hopland Services District are affected. Hopland sewer costs are 100% state expense. Estimated cost $200,000.

2) Railroad facilities or right of way affected? Yes X N o____

North Coast Railroad Grade Crossing -- $250,000 state expense – service contract.

3) Any known or potential sites with hazardous waste and/or material found? Yes _____None Evident X

_____

_____

4) Environmental Mitigation parcels anticipated? Yes X No_____

Approximately 20 acres of mitigation parcels (2:1) will be required. This could be mitigated from the 72 acres of excess land.

5) Any parcels with access modifications? Yes X No_____

Three freeway underpasses to private ownerships at $1,474,000.

6) Any parcels with indirect access modifications? Yes _____No X

(example left turn pocket access eliminated)_____

_____

_____

Preliminary Evaluation provided by:

Acquisition Estimator_____**Date** _____

Railroad Liaison_____**Date** _____

Utility Relocation Coordinator _____**Date** _____

Reviewed by:

Field Office Chief, Right of Way_____**Date**_____

Entered PMCS (Event, Cost, Agree) **By:**_____**Date**_____

Right of Way Scoping Checklist

(NOT TO BE USED FOR CAPITAL COST PROGRAMING PURPOSES)

A2-WEST ALTERNATIVE

Project Information

District: 01
County: Mendocino
Route: 101
Kilometer Post (Post Mile): 14.2/22.5 (8.8/14.0)
EA: 29210K

Description: Bypass Hopland-Upgrade to 4-lane facility from the Russian River Bridge approximately 3 km south of Hopland to approximately 5 km north of Hopland.

Project Manager:	Karen Tatman	Phone #: 8-457-5331
Project Engineer:	Ilene Poindexter	Phone #: 8-538-6602
Right-of-Way Functional Manager:	Jim Hall	Phone #: 8-538-6405
Project Development Coordinator:	Bert Wythe	Phone #: 8-538-6405

Right of Way Scoping

Describe and identify in the following sections a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, access modifications, etc.). The right of way issues should be discussed in sufficient detail to determine a preliminary planing level cost of Right of Way and identify the project's sensitive acquisition issues. Any environmental mitigation that requires R/W cost should also be identified.

Anticipated Right of Way Acquisition

Anticipated number of Right of Way Parcels to be acquired:

	Preliminary Value*	Number of Parcels	Estimated Square Footage	Full Take	Partial Take
Business/ Non-Profit	3,475,200	10	12.16 ac.	5	5
Single Family Residences	9,232,000	23	36.9 ac. (18.3 ac.)	15	8
Multi Family Residences	846,000	1	3.00 ac	1	---
Vacant Lot	93,700	1	1.1 ac. (0.1 ac. excess)	1	---
Farmland	2,703,000	11	61.8 ac.	---	11
Util.	190,000		0.4 ac. excess		
RR	250,00)	____	_____	___	___
Totals	$16,789,900	46	114.96 ac. (46.5 ha)	22	24
Call	$16,800,000		19.9 ac. excess (8.1 ha)		

* Note: Value includes contingency figure for RAP, Damages, Goodwill, Demolition, Construction Contract Work & Fees. Values escalated out 10 years at 4% year.

Project Screening

Attach the project location map to this checklist to show location of all right of way acquisition identified.

1. Project Features: New R/W? Yes Excavation? Yes
   Railroad Involvement? Yes Access Changes? Yes
   Structure demolition/modification? Yes Subsurface utility relocation? Possibly

2. Project Setting: The freeway is to the west of the existing
   Rural or Urban: Highway 101 and affects residential.
   Current land uses: Rural Residential and some agricultural parcels.
   Adjacent land uses: Commercial to the east, rural residential and school to the west.
   (industrial, light industry, commercial, agricultural, residential, etc.)

Right of Way Screening

Describe in detail and quantify any questions answered with a yes.

1) Are any utility facilities or rights of way affected Yes X No_____

PG&E, Pacific Bell and Hopland sewer lines are affected. Sewer costs will be at 100% state's cost -- $190,000 total.

2) Railroad facilities or right of way affected? Yes X N o_____

North Coast Railroad Grade Crossing -- $250,000 state expense – service contract.

3) Any known or potential sites with hazardous waste and/or material found? Yes X None Evident_____

There will be hazardous waste near the intersection of Highway 101 and Mountain House Road – Felix Creek Road.

4) Environmental Mitigation parcels anticipated? Yes X No_____

Minor mitigation can be mitigated against 21 acres of excess land.

5) Any parcels with access modifications? Yes X No_____

Separate access frontage roads will be needed to Milone Winery off Mountain House Road and from Hewitt Road to residential sites to the south and vineyards to the north.

6) Any parcels with indirect access modifications? Yes _____No X

(example left turn pocket access eliminated) Fire station will have direct access freeway ends at south side of fire station.

Preliminary Evaluation provided by:

Acquisition Estimator_____**Date** _____

Railroad Liaison_____**Date** _____

Utility Relocation Coordinator _____**Date** _____

Reviewed by:

Field Office Chief, Right of Way_____**Date**_____

Entered PMCS (Event, Cost, Agree) **By:**_____**Date**_____

Right of Way Scoping Checklist

(NOT TO BE USED FOR CAPITAL COST PROGRAMING PURPOSES)

A3-VALLEY ALTERNATIVE

Project Information

District: 01
County: Mendocino
Route: 101
Kilometer Post (Post Mile): 14.2/22.5 (8.8-14.0)

Description: Bypass Hopland-Upgrade to 4-lane facility from the Russian River Bridge approximately 3 km south of Hopland to approximately 5 km north of Hopland.

Project Manager:	Karen Tatman	Phone #: 8-457-5331
Project Engineer:	Ilene Poindexter	Phone #: 8-538-6602
Right-of-Way Functional Manager:	Jim Hall	Phone #: 8-538-6405
Project Development Coordinator:	Bert Wythe	Phone #: 8-538-6405

Right of Way Scoping

Describe and identify in the following sections a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, access modifications, etc.). The right of way issues should be discussed in sufficient detail to determine a preliminary planing level cost of Right of Way and identify the project's sensitive acquisition issues. Any environmental mitigation that requires R/W cost should also be identified.

Anticipated Right of Way Acquisition

Anticipated number of Right of Way Parcels to be acquired:

	Preliminary Value*	Number of Parcels	Estimated Square Footage	Full Take	Partial Take
Business/ Non-Profit	0	1	0.45 ac.		1 - RR
Single Family Residences		---			
Multi Family Residences		---			
Vacant Lot	1 - $200,000 mitigation costs				
Farmland	5,523,000	10	130.93	---	10
Util.	150,000				
RR	250,000	_____	_____		_____
Totals	$6,923,000	11	131.38 ac. 53.2 ha		11

* Note: Value includes contingency figure for RAP, Damages, Goodwill, Demolition, Construction Contract Work & Fees

Project Screening

Attach the project location map to this checklist to show location of all right of way acquisition identified.

1. Project Features: New R/W? Yes Excavation? Yes

   Railroad Involvement? Yes Access Changes? Yes

   Structure demolition/modification? No Subsurface utility relocation? Possibly

2. Project Setting: Alignment goes through agricultural land.

   Rural or Urban _____

   Current land uses: Agricultural

   Adjacent land uses: Agricultural to the east, commercial to the west. (industrial, light industry, commercial, agricultural, residential, etc.)

Right of Way Screening

Describe in detail and quantify any questions answered with a yes.

1) Are any utility facilities or rights of way affected? Yes X No____

PG&E, Pacific Bell and Hopland Services District lines will need relocation. Sewer costs will be at 100% state's expense.

2) Railroad facilities or right of way affected? Yes X No_____

A service contract with North Coast Railroad will be required.

3) Any known or potential sites with hazardous waste and/or material found? Yes ____None Evident X

4) Environmental Mitigation parcels anticipated Yes X No ___

Environmental mitigation estimated at 20 acres at 2:1 replacement at $5,000/ac. equals $200,000.

5) Any parcels with access modifications? Yes X No_____

Underpasses provided at ES 317+41 ($513,400) and ES 346+68 ($581,350) Connects ranches on both sides of freeway.

6) Any parcels with indirect access modifications? Yes X No_____

(example left turn pocket access eliminated) Fire station at north end of project will have direct access. Freeway ends at south side of fire station.

Preliminary Evaluation provided by:

Acquisition Estimator_____**Date** _____

Railroad Liaison_____**Date** _____

Utility Relocation Coordinator _____**Date** _____

Reviewed by:

Field Office Chief, Right of Way_____**Date**_____

Entered PMCS (Event, Cost, Agree) **By:**_____**Date**_____

PSR Performance Measures

For EA 01-29210K
Hopland Bypass

Y	N*		Confidence Score High Low
		Scope	5 [4] 3 2 1
■	□	• Is the "Need and Purpose" clearly defined and written in accordance with applicable permitting agency requirements?	
■	□	• Do the alternatives stay within scope or solve problem identified in "Need and Purpose"?	
□	■	• Does the scope incorporate required allied projects such as Traffic Management System (TMS) elements, replacement planting, environmental mitigation, maintenance needs, and relinquishment requirements.	
■	□	• Have non-standard features, if any, been approved using established guidelines?	
■	□	• Is scope consistent and coordinated with local, regional and state system plans?	
		Cost	5 4 [3] 2 1
■	□	• Is the estimate realistic and in accordance with established guidelines? Does it include a sum for contingencies consistent with risk?	
□	■	• Does the cost incorporate required allied projects such as TMS elements, replacement planting, environmental mitigation, relinquishment requirements.	
■	□	• Is the right of way cost developed in accordance with established guidelines and consistent with anticipated needs?	
□	■	• Were benefit/cost ratios and/or the data to calculate them provided?	
■	□	• Were funding sources and commitments identified? Is proposed funding program consistent with project type?	
■	□	• Were support costs identified in a manner consistent with SB 45 and CTC Guidelines and supported by a complete project work plan?	
		Schedule	5 [4] 3 2 1
■	□	• Is time allowed for environmental evaluation and construction commensurate with anticipated studies and work windows (e.g., hazardous waste, endangered or season-specific species)?	
■	□	• Does the schedule incorporate required allied projects such as TMS elements, replacement planting, environmental mitigation, relinquishment requirements.	
■	□	• Is Right of Way time provided consistent with anticipated needs, including railroad and utilities?	

ATTACHMENT K

Y N* **Schedule (cont.)**

■ □ • Is the schedule consistent with district resource capacity and based on an approved project work plan?

■ □ • Do local stakeholders agree with the schedule?

■ □ • Is schedule consistent and coordinated with local, regional and state plans?

Quality _____ 5 4 3 2 1

■ □ • Was the range of alternatives identified and evaluated consistent with the need and purpose of the project?

■ □ • Was the preliminary design, right-of-way, traffic and environmental effort adequate to confidently establish scope, schedule and estimate?

□ ■ • Were the studies adequate to identify all project stakeholders such as permitting agencies and community groups, and their anticipated levels of involvement?

■ □ • Were there adequate peer reviews such as district functional units, safety, maintenance and constructability reviews, value analysis, and OPPD so to alleviate any undue risk?

Total 15 x 5 = 75*

Explain any "No" responses as appropriate: No Benefit/ Cost ratios have not been calculated. Stakeholders have been identified to the greatest extent possible. It is certain that there are local interest groups that have not yet been identified. Estimates for each alternate have been completed as accurately as possible. However, given a timeline of approximately two months for which to accomplish this PSR, there is an amount of risk that will accompany this project. However, given that it is being programmed for PA&ED only, the risk is acceptable.

PSR development support costs $30,000

Prepared By:

Karen A Tatman 1/27/99
Project Manager Date

I have read and approve this evaluation.

Ken Knapp 1/28/99
District Director Date

* Any "No" boxes checked indicate a high risk and potential future problems.
** Less than 70 indicates High Risk.
*** Product of sum of confidence score and five.

K2

L

XPM Workplan

Hopland Bypass XPM Workplan For Project Approval and Environmental Document EA 01-29210K										
Proposed Program FY	District PY'S			Engineering Service Center PY'S					FY Total PY'S	Other Costs ($)
				Structures		METS & and Others		Office Engr.		
	Design	R/W	Construction	Design	Construction	Design	Construction			
99/00	5.9	0.3		1.4		0.1			7.7	
00/01	14.0	0.6		2.7		0.3			17.6	
01/02	8.7	0.6		1.3		0.1			10.7	
02/03	6.3	0.4							6.7	
03/04	6.6								6.6	
04/05										
TOTAL ESTIMATED PROJECT PY'S AND OTHER SUPPORT COSTS:									**49 PY'S**	**$***

PY'S = People Years
METS = Materials & Engineering Testing Services

*Note: Dollar value of estimated specialty contracts, etc. to be shown only when applicable.

ATTACHMENT M